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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/564,632	06/26/2006	Ljubomir Josifovski	01263.107359.	2067

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EXAMINER	
BROWN JR, NATHAN H	

ART UNIT	PAPER NUMBER
2129	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/564,632	JOSIFOVSKI, LJUBOMIR	
	Examiner	Art Unit	
	NATHAN H. BROWN JR	2129	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *(3)* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *02 December 2008*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *4-7, 10-14, 20-23, 26, 27, 36-39, 42-46, 52-55, 58, 59, and 62* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *4-7, 10-14, 20-23, 26, 27, 36-39, 42-46, 52-55, 58, 59, and 62* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

Examiner's Detailed Office Action

1. This Office Action is responsive to the communication for application 10/564,632, filed December 2, 2008.

2. Claims 4-7, 10-14, 20-23, 26, 27, 36-39, 42-46, 52-55, 58, 59, and 62 are pending. Claims 4, 7, 10, 11, 13, 14, 20, 21, 23, 26, 36, 39, 42, 43, 45, 46, 52, 53, 55, 58, 62 are currently amended. Claims 1-3, 8, 9, 15-19, 24, 25, 28-35, 40, 41, 47-51, 56, 57, 60, and 61 are cancelled. Claims 37, 38, 44, 54, and 59 are previously presented. Claims 5, 6, 12, 22, and 27 are original.

3. After the previous office action, claims 1-62 stood rejected.

Claim Rejections - 35 USC § 101

4. 35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

The claims fail to provide a tangible result, and there must be a practical application, by either:

1) transforming (physical thing) or

2) by having the FINAL RESULT (not the steps) achieve or produce a useful (specific, substantial, AND credible), concrete (substantially repeatable/non-unpredictable), AND tangible (real world/non-abstract) result.

A claim that is so broad that it reads on both statutory and non-statutory subject matter, must be amended. A claim that recites a computer that solely calculates a mathematical formula is not statutory.

However, the portions of the opinions in State Street and AT&T relying solely on a "useful, concrete and tangible" result analysis *should no longer be relied on*. Ex parte Bilski, Appeal No. 2007-1130 (Fed. Cir. October 30, 2008.

The court has said that there's a two-pronged test to determine whether a software of method process patent is valid: (1) it is tied to a particular machine or apparatus, or (2) it transforms a particular article into a different state or thing. In other words, pure software or business method patents that are neither tied to a specific machine nor change something into a different state are not patentable. Ex parte Bilski, Appeal No. 2007-1130 (Fed. Cir. October 30, 2008).

Claims 4-7, 10-14, 26, and 27 are rejected under 35 U.S.C. 101 because comparing a query lattice has no practical application and/or tangible result. Furthermore, the claimed

invention is not tied to a particular machine and does not transform any article to a different state or thing. Amended independent claim 4 recites a "method of searching a database comprising a plurality of information entries to identify information to be retrieved there from, each of said plurality of information entries having an associated annotation lattice". First, "searching a database" and "storage areas" are not tied to any *specific* machine or apparatus and none is recited. Second, a "method of searching" does not transform anything from one state to another. A query is *not* considered to be 'transformed' into a search result. The search result is considered to be something found (in the database) which matches some criteria embedded in the query. The claimed operations on lattices, sets, paths, and propagations of "accumulative values" are considered to be insignificant extra-solution activity on mathematical abstractions. Claims 5-7, 10-14, 26, and 27 merely recite further mathematical and algorithmic limitation to claim 4 and do not cure the deficiency of claim 4. Therefore, claims 4-7, 10-14, 26, and 27 are considered to be non-statutory under 35 U.S.C. 101.

6. Claims 20-23 are rejected under 35 U.S.C. 101 for the same reasons as claims 4-7, 10-14, 26, and 27.

7. Claims 36-39, 42-46, 58, 59, and 62 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter: software per se. Amended independent claim 36 recites an "apparatus for searching a database comprising a plurality of information entries to identify information to be retrieved therefrom, each of said plurality of information entries having an associated annotation lattice". The claimed "apparatus for searching a database" is considered to be a computer related manufacture having a data structure which meets the IEEE's definition (i.e., a lattice) but is not combined with a medium. Therefore, claim 36 is considered to be directed to software per se. Further the "apparatus for searching a database" of claim 36 has no associated physical transformation and claim 36 does not recite a specific and credible (i.e., tangible) real-world final result. The final step performed by the "apparatus" of propagating "accumulative values" to "storage areas associated with the destination node" is considered to be intermediate to generating a search result as would ordinarily be expected as a final result of an "apparatus for searching a database". Claims 37-39, 42-46, 58, 59, and 62 merely recite further mathematical and algorithmic limitation to independent claim 36 and do not cure the

deficiency of claim 36. Therefore, claims 36-39, 42-46, 58, 59, and 62 are considered to be non-statutory under 35 U.S.C. 101.

8. Claims 52-55 are rejected under 35 U.S.C. 101 because the claimed invention violates the doctrine of preemption. Amended independent claim 52 recites an "apparatus for searching a database comprising a plurality of information entries to identify information to be retrieved therefrom, each of said plurality of information entries having an associated annotation lattice… wherein the apparatus further comprises a processor operable to process … accumulative values". Examiner considers an "apparatus for searching a database" which comprises a "processor" to be a general purpose digital computer of any type. Examiner, therefore, considers claim 52 to preempt all uses of the recited algorithm processed by the apparatus because the algorithm has no utility other than operating on a digital computer (*see* CAFC, 2007-1130, *In Re Bilski*, pp. 12-13). Claims 53-55 merely recite further algorithmic limitation to independent claim 52 and do not cure the deficiency of claim 52. Therefore, claims 53-55 are considered to be non-statutory under 35 U.S.C. 101.

Response to Arguments

9. Applicant's arguments filed December 2, 2008 have been fully considered.

Rejection of Claims 1-62 Under 35 U.S.C. §112, 1st

Applicant(s) argue(s):

> Claims 1 to 62 were rejected under 35 U.S.C. § 112, first paragraph, and under 35 U.S.C. § 101. These rejections are respectfully traversed.
>
> The clear inference is that the USPTO is applying § 101 against the application, and that the application is somehow being tested for compliance with § I01. This is a mistake of law.

Examiner responds:

Examiner finds applicant's argument persuasive and withdraws the rejection of claims 1-62 under 35 U.S.C. §112, 1st.

Rejection of Claims 1-62 Under 35 U.S.C. §101

Applicant(s) argue(s):

> Page 4, the Office Action alleges that the claims fail to satisfy § 101 because they do not recite a "practical or tangible result". The "practical or tangible result" test has been rejected resoundingly, by the Federal Circuit in its recent en banc case of Inre Bilski, in favor of a "machine-or-transformation" test.
>
> Moreover, Applicant respectfully disagrees with the conclusion that the claims fail to show a "practical or tangible result". Previously presented Claim 28 clearly

recites the practical result of identifying information to be retrieved from a database by comparing a query lattice representing an input query with an annotation lattice associated with an information entity.

Nevertheless, and without conceding the correctness of the rejections, independent Claims 4 and 20 have been amended to include the subject matter of Claim 28, and Claims 36 and 52 have been rewritten in accordance with Claims 4 and 20, respectively. Therefore, independent claims 4, 20, 36 and 52 are each believed to recite a practical result. Accordingly, reconsideration and withdrawal of the rejections under § 112, first paragraph, and § 101 are respectfully requested.

No art-based rejections were lodged against Claims 4 and 20. Accordingly, in view of the foregoing, independent Claims 4, 20, 36 and 52, as well as the claims dependent therefrom, are believed to be in condition for allowance.

Examiner responds:

The examiner disagrees that the Bilski court case which is being appealed completely threw out needing a practical application.

What the court case said was the portions of the opinions in State Street and AT&T relying solely on a "useful, concrete and tangible" result analysis *should no longer be relied on*.

Examiner interprets a "practical or tangible result" to be an actual query result returned and presented on some type of display. The act of "identifying information to be retrieved" is considered to be just an intermediate step between the start of the parsed query execution and the return of the retrieval result. Amended claims 4-7, 10-14,

20-23, 26, 27, 36-39, 42-46, 52-55, 58, 59, and 62 are rejected on new grounds under 35 U.S.C. §101.

Rejection of Claims 1, 3, 8, 9, 15, 16, 19, 25, 28 to 33, 35, 36, 47, 48, 51, 57, 60 and 61 Under 35 U.S.C. §102(b)

Applicant(s) argue(s):

Claims 1, 3, 8, 9, 15, 16, 19, 25, 28 to 33, 35, 36, 47, 48, 51, 57, 60 and 61 were rejected under 35 U.S.C. § 102(b) over "Mandarin spoken document retrieval based on syllable lattice matching" (Wang).

Examiner responds:

Examiner withdraws the rejection of claims: 1, 3, 8, 9, 15, t6, 19, 25, 28 to 33, 35, 36, 47, 48, 51, 57, 60 and 61 under 35 U.S.C. § 102(b) over "Mandarin spoken document retrieval based on syllable lattice matching" (Wang).

Rejection of Claims 2, 17, 18, 24, 34, 40, 41, 49, 50, and 56 were rejected under 35 U.S.C. § 102(b)

Applicant(s) argue(s):

Claims 2, 24, 34, 40, 41 and 56 were rejected under 35 U.S.C. § 103(a) over Wang in view of "A Fast Lattice-Based Approach To Vocabulary Independent Wordspotting" (James). Claims 17, 18, 49 and 50 were rejected under 35 U.S.C. § 103(a) over Wang in view of "Phonetic Recognition For Spoken Document Retrieval" (Ng). The foregoing amendments

to the claims have been made without prejudice or disclaimer of subject matter, but rather solely for the purpose of advancing the case towards an early allowance. Accordingly, the correctness of these rejections is not conceded, and they are rather respectfully traversed.

Examiner responds:

Examiner withdraws the rejection of claims: 2, 24, 34, 40, 41 and 56 under 35 U.S.C. § 103(a) over Wang in view of "A Fast Lattice-Based Approach To Vocabulary Independent Wordspotting" (James) and 17, 18, 49 and 50 under 35 U.S.C. § 103(a) over Wang in view of "Phonetic Recognition For Spoken Document Retrieval" (Ng) as amended.

Conclusion

Applicant's amendment necessitated any new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL.** See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action

is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Correspondence Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nathan H. Brown, Jr. whose telephone number is 571-272- 8632. The examiner can normally be reached on M-F 0830-1700. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Vincent can be reached on 571-272-3080. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications

may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Nathan H. Brown, Jr./
Examiner, Art Unit 2129
February 24, 2009
/David R Vincent/
Supervisory Patent Examiner, Art Unit 2129